

CLAIMS

Amend the claims as follows.

1. (Currently amended) A fax communication system ~~for communicating fax information, in the form of packets arranged in frames, between a first fax machine having error correction capability and a second fax machine, the first and second fax machines being coupled to communicate with one another across a packet switching network,~~ comprising:

a first fax machine;

a second fax machine;

A network device to accumulate a portion of the ~~coupled to receive fax information received from the first fax machine over a public switching telephone network, to detect errors in the accumulated portion of the fax information using cyclic redundancy code (CRC) error checking and correction, said network device including an accumulation block for accumulating a portion of the fax information over the public switching telephone network in the form of at least one frame for stalling the second fax machine while accumulating said portion until said portion is determined to be free of errors using cyclic redundancy code (CRC) error checking and correction, to stall the said portion being sent to the second fax machine responsive to detecting errors in the accumulated portion of the fax information, and to send the accumulated portion of the fax information free of errors across the packet switching network to the second fax machine responsive to detecting no errors in the accumulated portion of the fax information.~~

2. (Original) A system as recited in claim 1 wherein the fax information is transmitted between the first fax machine and the second fax machine in real-time.

3. (Original) A system as recited in claim 1 wherein the stalling signal is in the form of a fax cover page.

4. (Original) A system as recited in claim 1 wherein the stalling signal is a nonfunctional command.

5. (Original) A system as recited in claim 1 wherein the stalling signal is invalid data.

6. (canceled)

7. (Currently amended) A system as recited in claim 1 wherein the fax information includes fax pages with each page comprising one or more blocks having one or more frames and further wherein ~~said-the~~ network device for accumulating one or more frames of a block, within the accumulation block, as ~~said-the~~ accumulated portion of fax information.

8. (Original) A system as recited in claim 1 wherein the network device is a router.

9. (Currently amended) A system as recited in claim 1 wherein the network device further for detecting errors in the accumulated portion of the fax information, for retransmitting ~~said-the~~ accumulated portion back to the first fax machine, for receiving ~~said-the~~ accumulated portion, error-free, and for transmitting ~~said-the~~ error-free portion through the packet switching network to the second fax machine thereby minimizing retransmissions of ~~said-the~~ portion or any sub-portion thereof of ~~said-the~~ fax information through the packet switching network to avoid an avalanche effect.

10. (Currently amended) A system as recited in claim 1 wherein ~~said-the~~ network device further includes a digital signal processor for modulating/demodulating the fax information.

11. (Currently amended) A system as recited in claim 10 wherein ~~said-the~~ network device further includes a central processing unit, coupled to the digital signal processor, for accumulating the fax information and for forming from the fax information.

12. (Currently amended) A system as recited in claim 11 wherein ~~said-the~~ network device further includes a memory coupled to the central processing unit for storing the fax information and software means for reading the stored fax information and for transmitting the fax information through the packet switching network.

13. (Currently amended) A system as recited in claim 1 wherein ~~said-the~~ network device is responsive to the fax information received from the first fax machine through an interface defined by the TCP/IP protocol.

14. (Currently amended) A system as recited in claim 1 wherein ~~said the~~ network device is coupled to the first fax machine through a public switching telephone network.

15. (Currently amended) A system as recited in claim 1 wherein ~~said the~~ network device is coupled, through the packet switching network, to a receiving network device, coupled to the second fax machine, the receiving network device for transmitting the fax information to the second fax machine and upon detection of errors within the fax information, for receiving a retransmission of the fax information from the second fax machine and repeating retransmissions until the fax information is transmitted, error free, to the second fax machine.

16. (Currently amended) A method for transmitting fax information between a first fax machine having error correction capability and a second fax machine, the first and second fax machines being coupled to communicate with one another across a packet switching network, in the form of packets organized into frames, comprising:

- receiving fax information over a public switching telephone network from the first fax machine;

- accumulating at least one frame being a portion of the fax information;

- performing error checking and correction using cyclic redundancy code (CRC) on ~~said the~~ at least one frame;

- stalling the second fax machine while accumulating ~~said the~~ portion of fax information; and

- transmitting, to the second fax machine, ~~said the~~ accumulated portion of fax information, free of errors, across the packet switching network thereby avoiding retransmission of ~~said the~~ portion or any sub-portions thereof across the packet switching network.

17. (Currently amended) A method as recited in claim 16 further including the steps of detecting errors in the accumulated portion of the fax information, retransmitting the accumulated portion back to the first fax machine, receiving ~~said the~~ retransmitted portion and transmitting the received retransmitted portion free of errors across the packet switching network.

18. (Currently amended) An apparatus:

a means for receiving fax information over a public switching telephone network from the first fax machine;

a means for accumulating at least one frame being a portion of the fax information;

a means for performing error checking and correction using cyclic redundancy code (CRC) on ~~said the~~ at least one frame;

a means for stalling the second fax machine while accumulating ~~said the~~ portion of fax information; and

a means for transmitting, to the second fax machine, ~~said the~~ accumulated portion of fax information, free of errors, across the packet switching network thereby avoiding re-transmission of ~~said the~~ portion or any sub-portions thereof across the packet switching network.